



**COMMENT**  
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# DISCOVERY RELIES ON STRONG SUPPORT STAFF

*A lack of trained administrators is holding African scientists back.*

The global research funding system is becoming increasingly complex and competitive. Scientists need to demonstrate quality, relevance, impact and innovation, while meeting the highest standards of integrity and ethics, managing intellectual property issues and publicizing their work.

To help them succeed in this demanding environment, scientists in the global north have something that those in the global south lack: comparatively well-resourced support structures with trained research management and administration staff, who assist with planning, developing, managing and sustaining their research pursuits. Higher-education institutions in the global south would benefit from similar investments in strong, multi-skilled research support.

Many regions are struggling to compete with the global scientific powers. Africa, for example, has some 700 universities serving more than 1.2 billion people. The region has the lowest investment in research and development, the lowest number of researchers per capita and a comparatively low, albeit growing, share of global scientific publications.

Just as the most talented athletes need good coaches to take them to stardom, gifted scientists in the region need well-trained support staff to help them shine.

## IN SHORT SUPPLY

In 2014, the 55 countries that make up the African Union adopted a 10-year strategy for science, technology and innovation. They recognized the critical role of science in the socio-economic development and growth of the continent, and stressed the importance of turning universities into centres of excellence.

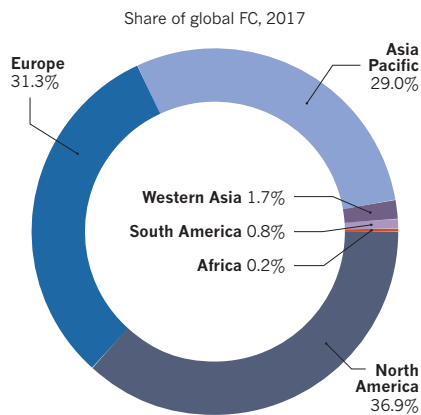
But progress has been slow. The top country in terms of spending on R&D, South Africa, is still below 0.8% of GDP and showed slightly decreasing spending over the past five years.

Universities in Africa are increasingly dependent on international sources of funding for research. Funders in the global north are also recognizing the value of collaborating with researchers in low- and middle-income countries. They offer geographical advantages

in certain fields, talented researchers, access to important data sets, knowledge of the developing world context, and insight into new markets. Among others, the United Kingdom Newton Fund, the United States National Institutes of Health, and the European Union Horizon 2020, have committed millions of dollars in grant funding for collaborative research with Africa and other regions in the global south.

## RESEARCH REPRESENTATION

In 2017, institutions in Africa contributed to 0.2% of the paper authorship in the 82 journals that make up the Nature Index. Their contribution to high-quality research in the natural sciences, measured by fractional count (FC), was far exceeded by institutions in North America, Europe and Asia Pacific.



To capitalize on these opportunities, universities need to invest in skilled research support teams. Well-trained professionals can instil confidence in potential partners that research funds will be spent efficiently and responsibly.

But, such professionals are in short supply on the continent. The majority of universities in Africa typically rely on senior professors to provide part-time guidance on research administration, while expecting them to maintain teaching and research obligations. There is therefore a general lack of capacity in African universities to support and develop research, and no obvious career pathway or professional

qualification to allow for the recruitment and development of research management and administration personnel.

## ON COURSE

Over the past decade, several initiatives have sought to create a research support system in Africa and other parts of the developing world. These have been supported by the Association of Commonwealth Universities, as well as international funding bodies, including the World Health Organisation and the Wellcome Trust. Existing professional associations for research and innovation managers, such as the Southern African Research and Innovation Management Association (SARIMA) and WARIMA in West Africa, have been strengthened through capacity development interventions, with new associations created in Central (CARIMA) and East Africa (EARIMA) and the Caribbean (CabRIMA).

In 2017, a consortium of institutions led by Stellenbosch University in South Africa, and co-funded by the EU Erasmus+ programme, launched the first professional academic qualification programme for research management and administration in the global south. The project, known in short as StoRM, will develop a post-graduate diploma course and a master's degree curriculum, as well as a mechanism for formal recognition of professionals in the field. It will also promote exchange between administrators in Europe and southern Africa.

Universities also need to invest more in this area to support their scientific stars. For example, they could allocate indirect costs recovered by grant income to support structures. Many universities in the global south are developing strategies to become research intensive. Providing optimal research support will help create thriving and sustainable scientific communities, and improve innovation and impact from research in the developing world. ■

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SOURCE: NATURE INDEX

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